

REMARKS

This is in full and timely response to the above-identified Office Action. The above listing of the claims supersedes any previous listing. Favorable reexamination and reconsideration are respectfully requested in view of the preceding amendments and the following remarks.

Rejections under 35 USC § 112

In connection with the rejection of claims 21 and 25 under 35 USC § 112, second paragraph, it must be pointed out that the term "back stream" is not found in claim 25. It does, however, appear in claim 26 which currently stands withdrawn. Nevertheless, the term has been changed to "downstream" as per the examiner's suggestion in claims 21 and 26 (along with other claims which currently stand withdrawn from consideration).

Corresponding amendments have been made to the specification. No new matter has been added.

Rejections under 35 USC § 102

The rejection of claim 19 under 35 USC § 102(b) as being anticipated by Hashizume is respectfully traversed.

In this response, claim 19 has been amended via the inclusion of the subject matter of claims 21 and 25 (which have been cancelled). Inasmuch as the subject matter of claims 21 and 25 is not anticipated, it is submitted that this amendment moots the anticipation.

Rejections under 35 USC § 103

The rejection of claim 21 under 35 USC § 103(a) as being unpatentable over Hashizume in view of Asano, is respectfully traversed irrespective of this claim having been cancelled.

In this rejection, the Asano reference is cited in light of the admission that Hashizume does not teach lowering the pH of the water to be treated downstream of the oxidizing reagent bath. Asano is cited to teach the addition of acid before sending the water to be treated to a UV treatment tank in order to prevent the precipitation of dissolved metals such as calcium and magnesium on the other surface of the UV lamps. It is then asserted that it would be obvious to

provide an acid adding unit before the UV treatment to protect the lamps from such deposits. However, the addition of the acid before the UV treatment is such as to place it upstream of the UV treatment not downstream thereof.

Further, this position appears to be based on the incorrect assumption that the essentially simultaneous ozone/UV exposure used in Asano is would be considered for use in Hashizume as different from the clearly staged arrangement in Hashizume, and is further based on the assumption that the deposits that are mentioned as forming on the UV-ray transmitting pipes is due to the presence of Ca and Mg ions.

A review of the two citations does not reveal any specific disclosure as to this particular feature and it is requested that the portion or portions of the reference(s) which actually disclose this, be specified should the rejection be maintained.

Indeed, the Asano reference fails to show or suggest the combination of the limitations of claims 21 and 25. In fact, it appears to lead away from this claimed subject matter. More specifically, even if (*arguedo*) Asano teaches adding acid before providing the water to be treated to a UV treatment tank in order to prevent precipitation of dissolved metals such as calcium and magnesium on the outer surface of the UV lamp, the addition of acid so that a pH value falls within a range from 2 to 4 would not to protect the lamp from such type of precipitation.

According to the claimed subject matter, the specific pH range in the acid treatment bath 23 is to oxidize the thiosulfuric acid almost completely into sulfide ions even if the thiosulfuric acid decomposes down only to its intermediate under alkaline condition (see [0037]). Experimental Example 1 in the written description shows that the specific pH range results in a COD concentration of 21 mg/L, which is an advantage unique to the claimed subject matter.

It is submitted that, in order to establish a *prima facie* case of obviousness, it is necessary to show that the hypothetical person of ordinary skill would, without any knowledge of the claimed subject matter and without any inventive activity, be provided with disclosure of all of the claimed elements and then motivated to arrive at the claimed subject matter given the guidance of the cited references when each is fully considered as statutorily required. It is respectfully submitted that the rejection fails to meet these requirements.

Conclusion

It is respectfully submitted that the claims as they have been amended are allowable over the art which has been applied in this Office Action. Favorable reconsideration and allowance of this application are courteously solicited.

To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account 07-1337 and please credit any excess fees to such deposit account.

Respectfully submitted,  
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